COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

TIDEWATER REGIONAL OFFICE
5636 Southern Boulevard, Virginia Beach, Virginia 23462
(757) 518-2000 Fax (757) 518-2009
www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

Maria R. Nold
Regional Director

April 28, 2015

Mr. Andrew B. Chapman
Plant Manager
Solenis LLC
27123 Shady Brook Trail
Courtland, Virginia 23837-2034

Location: Southampton County
Registration No.: 60188
ICIS Id. No.: 51-175-00012

Dear Mr. Chapman:

Attached is a permit to operate your chemical manufacturing facility, part of a three-facility stationary source under common control (Solenis LLC, Eastman Chemical Resins, Incorporated, and Arkema Incorporated) pursuant to 9 VAC 5 Chapter 80 of the Virginia Regulations for the Control and Abatement of Air Pollution. This permit incorporates provisions from the State Operating Permit dated December 7, 2004, and the minor New Source Review permits dated February 17, 2011, and March 28, 2013.

The permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and civil penalty. Please read all permit conditions carefully.

In evaluating the application and arriving at a final decision to issue this permit, the Department deemed the application complete on December 11, 2014, and solicited written public comments by placing a newspaper advertisement in the Tidewater News newspaper on Friday, March 13, 2015. The thirty day comment period (provided for in 9 VAC 5-80-270) expired on Monday, April 13, 2015, with no comments having been received in this office.

This approval to operate does not relieve Solenis LLC of the responsibility to comply with all other local, state, and federal permit regulations.

Issuance of this permit is a case decision. The Regulations, at 9 VAC 5-170-200, provide that you may request a formal hearing from this case decision by filing a petition with the Board within 30 days after this permit is mailed or delivered to you. Please consult that and other relevant provisions for additional requirements for such requests.

Additionally, as provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date you actually received this permit or the date on which it was mailed to you, whichever occurred first, within which to initiate an appeal to court by filing a Notice of Appeal with:

David K. Paylor, Director
Department of Environmental Quality
PO Box 1105
Richmond, VA 23218-1105

In the event that you receive this permit by mail, three days are added to the period in which to file an appeal. Please refer to Rule 2A of the Rules of the Supreme Court of Virginia for additional information including filing dates and the required content of the Notice of Appeal.

If you have any questions concerning this permit, please contact Ms Yen Bao by phone at (757) 518-2195 or by e-mail at yen.bao@deq.virginia.gov.

Sincerely,

Troy D. Breathwaite
Regional Air Permits Manager

TDB/YTB/60188_019_15_CoverLet_T5Renewal_Solenis LLC.doc

Attachment: Permit

cc: Manager, Data Analysis (electronic file submission)
Manager/Inspector, Air Compliance
Chief, Air Enforcement Branch (3AP13), U.S. EPA, Region III (electronic file submission)

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Federal Operating Permit
Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1, of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	Solenis LLC
Facility Name:	Solenis LLC
Facility Location:	27123 Shady Brook Trail Courtland, Virginia 23837-2034
Registration Number:	60188
Permit Number:	TRO-60188

This permit includes the following programs:

Federally Enforceable Requirements - Clean Air Act (Pages 3 through 47)
State Only Enforceable Requirements (Page 48)

April 28, 2015
Effective Date

April 27, 2020
Expiration Date

Maria R. Nold

April 28, 2015
Signature Date

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I. Facility Information

Permittee
Solenis LLC
500 Hercules Road
Wilmington, Delaware 19808

Responsible Official
Andrew B. Chapman
Plant Manager
Solenis LLC

Facility
Solenis LLC
27123 Shady Brook Trail
Courtland, Virginia 23837-2034

Contact Person
Maggie Pagels
EHS Manager
Solenis LLC
(757) 569-2976

County-Plant Identification Number: 51-175-00012

Facility Description: NAICS 325998 – All Other Miscellaneous Chemical Product and Preparation Manufacturing.

The main production process, permitted to operate by State Operating Permit (SOP) dated 12/07/04, is called the Aquapel® process that is a batch process, converting fatty acids to an alkyl ketene dimer. The product is sold to the fine paper industry as a sizing agent.

Wastewater from the Aquapel® process is treated by the Wastewater Neutralization process prior to discharge in accordance with the facility's permit.

For steam supply for the plant operation, the facility has two boilers, each with a maximum rated heat input capacity of 32.659 million BTU/hr, firing natural gas with distillate oil as back-up fuel, permitted to install and operate by minor NSR permit dated 2/17/2011. A minor NSR permit was issued on 3/28/2013 for a temporary boiler with a maximum rated heat input capacity of ≤ 50 million Btu/hr firing natural gas with distillate oil as back-up fuel which can be brought on-site for temporary use when a need arises such as when their regular boilers malfunction or are undergoing maintenance. The current permits do not allow simultaneous operation of all three boilers except during the transition period when one of the regular boilers is being taken off line or being brought back on line after being down.

The facility has an emergency air compressor with the diesel internal combustion engine manufactured on 8/16/2006 which is subject to NSPS Subpart IIII. Three other emergency reciprocating internal combustion engines at the site are a diesel fire pump and two diesel well pumps. They are ≤ 500 hp and constructed before 6/12/2006, hence not NSPS Subpart IIII but subject to MACT Subpart ZZZZ.

II. Emission Units

For fuel burning equipment, each unit has its own name.

For process equipment, the following naming system was used to identify emission units, stacks/vents, and control equipment associated with each process. Two letters are used to identify each process: AQ for Aquapel® process, and WW for Wastewater Neutralization process. A third letter "E", "S", or "C" denotes an emission group, a stack/vent, or a control device, respectively. The next two numbers are consecutive numbers used for each category to indicate a unit or a group of units with common function. For example AQE01 represents the emission group in the first step of the Aquapel® process. Each emission unit in AQE01 is then identified by its own equipment ID number, e.g. A-18 and A-19. Stack/vents and control devices are always individual units, e.g. AQS01 and AQC01 are stack 01 and control device 01, respectively, and hence, no further identification is necessary. Each stack/vent or control device may serve several emission groups. For example, AQC01 controls emissions from AQE02 to AQE09 with the common vent AQS01, while AQC02 and AQC03 (in series) control emissions from AQE10 to AQE18 (except tanks A-33 and A-89B) with the common vent AQS02.

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/ Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Fuel Burning Equipment							
ES-TB	EP-TB	Temporary boiler firing natural gas with distillate oil as back-up, to be brought on-site as needed, NSPS Subpart Dc	≤ 50 mmBtu/hr	N/A	N/A	N/A	03/28/13 NSR
ES-B1	EP-B1	Boiler firing natural gas with distillate oil as back-up, NSPS Subpart Dc and MACT Subpart DDDDD, Gas 1 Subcategory, installed 5/2012	32.659 mmBtu/hr	N/A	N/A	N/A	2/17/11 NSR

Emission Unit ID	Stack ID	Emission Unit Description	Size/ Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
ES-B2	EP-B2	Boiler firing natural gas with distillate oil as back-up, NSPS Subpart Dc and MACT Subpart DDDDD, Gas 1 Subcategory, installed 5/2012	32.659 mmBtu/hr	N/A	N/A	N/A	2/17/11 NSR
EAC1	N/A	Atlas Copco emergency air compressor Model No. XAS 756 (CD) with Caterpillar C6.6 Tier III diesel internal combustion engine, built 08/16/2006, serial # 66601652, NSPS Subpart IIII	195.8 HP	N/A	N/A	N/A	N/A
Fire Pump	N/A	Emergency diesel fire pump, May 2003, MACT ZZZZ	300 HP	N/A	N/A	N/A	N/A
Well Pump #4	N/A	Emergency diesel well pump, August 1977, MACT ZZZZ	312 HP	N/A	N/A	N/A	N/A
Well Pump #5	N/A	Emergency diesel well pump, August 1993, MACT ZZZZ	255 HP	N/A	N/A	N/A	N/A
Aquapel® Process (MON MACT, 40 CFR 63 Subpart FFFF)							
AQE01/	N/A	Raw material and reactant storage tanks	-	N/A	N/A	N/A	12/07/04 SOP
A-18	N/A	Fatty acid tank, 1990	75 m^3 to <151m^3	N/A	N/A	N/A	-
A-19	N/A	Fatty acid tank, 1991	75 m^3 to <151m^3	N/A	N/A	N/A	-
AQE02	AQS01	Reactant storage tanks	-	Packed scrubber	AQC01	Non-VOC HAP	12/07/04 SOP

Emission Unit ID	Stack ID	Emission Unit Description	Size/ Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
AQE03/	AQS01	Reactors	-	Packed scrubber	AQC01	Non-VOC HAP	12/07/04 SOP
R-110 & R-111	-	Two reactors, 1997	-	-	-	-	-
AQE04/	AQS01	Process Tanks	-	Packed scrubber	AQC01	Non-VOC HAP	12/07/04 SOP
T-112 , T-113, T-114, and T-115		Four process tanks, 1990-1991	-	-	-	-	-
AQE05/	AQS01	Process Tanks	-	Packed scrubber	AQC01	Non-VOC HAP	12/07/04 SOP
T-118	-	Process tank, 1997	-	-	-	-	-
T-119-1	-	Process Tank, 1999	-	-	-	-	-
T-119-2	-	Process tank, 2006	-	-	-	-	-
T-116 & T-117	-	Two process tanks, 1990	-	-	-	-	-
AQE06/	AQS01	Processing System	-	Packed scrubber	AQC01	Non-VOC HAP	12/07/04 SOP
T-100	-	By-product tank, 1990	-	-	-	-	-
C-203	-	Processing unit, 1994	-	-	-	-	-
C-213	-	Processing unit, 1997	-	-	-	-	-
A-31	-	By-product tank, 1995	-	-	-	-	-
AQE07/	AQS01	Liquid handling system	-	Packed scrubber	AQC01	Non-VOC HAP	12/07/04 SOP
CIRCUL	-	Aqueous solution tank, 1985	-	-	-	-	-
AQE08/	AQS01	By-product recovery and storage system	-	Packed scrubber	AQC01	Non-VOC HAP	12/07/04 SOP
T-108-6	-	Aqueous solution tank, 1998	40 to <75 m3	-	-	-	-
A-12	-	By-product tank, 1991	40 to <75 m3	-	-	-	-
A-13	-	By-product tank, 1991	40 to <75 m3	-	-	-	-
A-14		By-product tank, 1991	40 to <75 m3	-	-	-	-

Emission Unit ID	Stack ID	Emission Unit Description	Size/ Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
T-108-1	-	By-product tank, 1990	40 to <75 m3	-	-	-	-
A-29	-	By-product tank, 1993	40 to <75 m3	-	-	-	-
T-108-3	-	By-product tank, 1990	40 to <75 m3	-	-	-	-
T-108-5	-	Aqueous solution tank, 1997	-	-	-	-	-
AQE09/	AQS01	Neutralization System	-	Packed scrubber	AQC01	Non-VOC HAP	12/07/04 SOP
NEUTRAL	-	By-product tank, 1990	-	-	-	-	-
T-119-2	-	Water/Fatty acid tank, 2005	-	-	-	-	-
AQE10/	AQS02	VOC storage tanks	-	Condenser and Carbon Adsorber in series	AQC02 and AQC03	95% control of VOC	12/07/04 SOP
A-6	-	VOC storage tank, 1991	-	-	-	-	-
A-7	-	VOC storage tank, 1994	-	-	-	-	-
A-8	-	VOC storage tank, 1995	-	-	-	-	-
A-49	-	VOC storage tank, 1965	-	-	-	-	-
AQE11/	AQS02	VOC storage tanks	-	Condenser and Carbon Adsorber in series	AQC02 and AQC03	95% control of VOC	12/07/04 SOP
A-16	-	VOC storage tank, 2001	-	-	-	-	-
A-17	-	VOC storage tank, 1994	-	-	-	-	-
A-5	-	VOC storage tank, 1991	-	-	-	-	-
AQE12/	AQS02	Reactors	-	Condenser and Carbon Adsorber in series	AQC02 and AQC03	95% control of VOC	12/07/04 SOP
R-41	-	Reactor, 2003	-	-	-	-	-
R-40	-	Reactor, 2003	-	-	-	-	-
A-33 (1)	-	VOC storage tank, 1965	-	N/A	N/A	N/A	-

Emission Unit ID	Stack ID	Emission Unit Description	Size/ Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
AQE13/	AQS02	Centrifuge system	-	Condenser and Carbon Adsorber in series	AQC02 and AQC03	95% control of VOC	12/07/04 SOP
T-412B	-	Centrifuge feed tank, 2003	-	-	-	-	-
S-403-1	-	Small centrifuge, April 2012	-	-	-	-	-
S-413-1	-	Large centrifuge, 1998	-	-	-	-	-
T-412-1	-	Centrifuge feed tank, 1989	-	-	-	-	-
AQE14/	AQS02	Separation system	-	Condenser and Carbon Adsorber in series	AQC02 and AQC03	95% control of VOC	12/07/04
T-42	-	Crude product tank, 1990	-	-	-	-	-
A-45	-	Crude product tank, 1966	-	-	-	-	-
A-53	-	Mixed solvent tank, 1965	-	-	-	-	-
C-608-1	-	Processing unit, 2000	-	-	-	-	-
S-611-2	-	Separator, 1990	-	-	-	-	-
S-614-2	-	Separator, 1990	-	-	-	-	-
S-620-2	-	Separator, 1996	-	-	-	-	-
AQE15/	AQS02	Solvent Recovery System	-	Condenser and Carbon Adsorber in series	AQC02 and AQC03	95% control of VOC	12/07/04 SOP
A-43	-	By-product solution tank, 1990	-	-	-	-	-
A-44	-	By-product solution tank, 1978	-	-	-	-	-
A-80, and A-81	-	By-product solution tanks, 1979	-	-	-	-	-
T-503-1 (same as A-82)	-	Recovery tank, 1997	-	-	-	-	-

Emission Unit ID	Stack ID	Emission Unit Description	Size/ Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
AQE16= AQC02	AQS02 & AQS04	Condenser, 1990	-	Carbon Adsorber, January 1996	AQC03	95% control of VOC	12/07/04 SOP
AQE17/	AQS02	Batch separation system	-	Condenser and Carbon Adsorber in series	AQC02 and AQC03	95% control of VOC	12/07/04 SOP
A-79	-	VOC tank, 1991	-	-	-	-	-
A-84	-	VOC tank, 1991	-	-	-	-	-
A-83	-	Overhead water tank, 1991	-	-	-	-	-
A-85	-	Scrap tank, 1991	-	-	-	-	-
A-86	-	VOC tank, 1981	-	-	-	-	-
A-86A		VOC tank, 1998	-	-	-	-	-
A-88	-	Overflow tank, 1965	-	-	-	-	-
A-90	-	Batch processing unit, 1965	-	-	-	-	-
AQE18/	AQS02	VOC processing system	-	Condenser and Carbon Adsorber in series	AQC02 and AQC03	95% control of VOC	12/07/04 SOP
A-87A	-	VOC tank, 1998	40 to <75 m3	-	-	-	-
A-87	-	VOC tank, 1981	-	-	-	-	-
A-89A	-	By-product tank, 2002	-	-	-	-	-
S-513-8	-	VOC processing unit, 2003	-	-	-	-	-
S-510-2	-	VOC separator, 1965	-	-	-	-	-
A-89B [1]	-	By-product tank, 2004	-	N/A	N/A	N/A	-
AQE19/	AQS03	Packaging system	-	N/A	N/A	N/A	12/07/04 SOP
T-717-1	-	Dowfrost refrigerated water tank, 1996	-	N/A	N/A	N/A	-
T-103	-	Dowfrost refrigerated water tank, 1966	-	N/A	N/A	N/A	-

Emission Unit ID	Stack ID	Emission Unit Description	Size/ Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Processing units 1 & 2	-	Two processing units, 1997	-	N/A	N/A	N/A	-
T-65-1	-	Feed tank, 1996	-	N/A	N/A	N/A	-
Wastewater Neutralization Process							
WWE10/	N/A	Combined Basin, 1955	-	N/A	N/A	N/A	12/07/04 SOP
WWE11/	N/A	Wastewater neutralization tanks	-	N/A	N/A	N/A	12/07/04 SOP
T-702	N/A	Tank, 1998	-	N/A	N/A	N/A	-
T-703	N/A	Tank, 1994	-	N/A	N/A	N/A	-
T-704	N/A	Tank, 1996	75 m^3 to <151m^3	N/A	N/A	N/A	-

*The Size/Rated capacity and PCD efficiency are provided for informational purposes only, and are not an applicable requirement.
(1) The tank is not connected to AQC02 and AQC03.

III. Fuel Burning Equipment Requirements – Temporary Boiler (Emission Unit ID# ES-TB)

A. Limitations

1. **Fuel Burning Equipment Requirements – (ES-TB) – Emission Control** - NOx emissions from the temporary boiler shall be controlled by flue gas recirculation (FGR). The FGR shall be provided with adequate access for inspection and shall be in operation when the boiler is operating.
(9 VAC 5-80-110 and Condition 2 of 3/28/13 NSR permit)

2. **Fuel Burning Equipment Requirements – (ES-TB) – Fuel Limitations** - The approved fuels for the temporary boiler are natural gas and distillate oil. A change in the fuels may require a permit to modify and operate.
(9 VAC 5-80-110 and Condition 3 of 3/28/13 NSR permit)

3. **Fuel Burning Equipment Requirements – (ES-TB) – Fuel Specifications** - The distillate oil shall meet the specifications below:

   DISTILLATE OIL which meets the ASTM D396 specification for numbers 1 or 2 fuel oil:

   Maximum sulfur content per shipment: 0.2 %

   (9 VAC 5-80-110, and Condition 6 of 3/28/13 NSR permit)

4. **Fuel Burning Equipment Requirements – (ES-TB) – Fuel Oil Throughput Limitations** - The temporary boiler shall consume no more than 178,571 gallons of distillate oil per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-110 and Condition 4 of 3/28/13 NSR permit)

5. **Fuel Burning Equipment Requirements – (ES-TB) – Operating Limitations** -

   Each time the temporary boiler (ES-TB) is needed at the facility, it shall not remain on-site for more than 12 consecutive months.

   The temporary boiler (Ref. No. ES-TB) shall not be operating on-site when both of the facility boilers (ES-B1 and ES-B2) are operating except during the transition period when one of the boilers (ES-B1 and ES-B2) is being taken off line or being brought back on line after being down.
(9 VAC 5-80-110 and Condition 5 of 3/28/13 NSR permit)

6. **Fuel Burning Equipment Requirements – (ES-TB) – Fuel Certification** - The permittee shall obtain a certification from the fuel supplier with each shipment of distillate oil. Each fuel supplier certification shall include the following:

   a. The name of the fuel supplier;

   b. The date on which the distillate oil was received;

   c. The quantity of distillate oil delivered in the shipment;

d. A statement that the distillate oil complies with the American Society for Testing and Materials specifications (ASTM D396) for numbers 1 or 2 fuel oil; and

e. The sulfur content of the distillate oil.

Fuel sampling and analysis, independent of that used for certification, as may be periodically required or conducted by DEQ may be used to determine compliance with the fuel specifications stipulated in Condition 3. Exceedance of these specifications may be considered credible evidence of the exceedance of emission limits.
(9 VAC 5-80-110 and Condition 7 of 3/28/13 NSR permit)

7. **Fuel Burning Equipment Requirements – (ES-TB) – Emission Limitations** - Emissions from the operation of the temporary boiler (ES-TB) shall not exceed the limits specified below:

	Lbs/hr		Tons/yr
	Natural gas	Distillate oil	
Particulate Matter (PM) (Filterable only)	0.5 lbs/hr	2.5 lbs/hr	2.7 tons/yr
PM (Total)	0.8 lbs/hr	3.0 lbs/hr	4.0 tons/yr
PM-10 (Total)	0.8 lbs/hr	1.7 lbs/hr	3.7 tons/yr
PM-2.5 (Total)	0.8 lbs/hr	0.8 lbs/hr	3.4 tons/yr
Sulfur Dioxide	0.03 lbs/hr	10.2 lbs/hr	2.7 tons/yr
Nitrogen Oxides (as NO_2)	1.8 lbs/hr	5.8 lbs/hr	8.8 tons/yr
	30 ppmvd @ 3% O_2	90 ppmvd@3% O_2	
Carbon Monoxide	7.3 lbs/hr	3.9 lbs/hr	32.0 tons/yr
Volatile Organic Compounds	0.2 lbs/hr	0.2 lbs/hr	0.9 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 1-6, 8, and 12-14.
(9 VAC 5-80-110 and Condition 10 of 3/28/13 NSR Permit)

8. **Fuel Burning Equipment Requirements – (ES-TB) – Visible Emission Limitations** -Visible Emissions from the temporary boiler (ES-TB) shall not exceed ten percent (10%) opacity except during one six-minute period in any one hour in which visible emissions shall not exceed twenty percent (20%) opacity as determined by the EPA Method 9 (Reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.
(9 VAC 5-80-110 and Condition 11 of 3/28/13 NSR Permit)

9. **Fuel Burning Equipment Requirements – (ES-TB) - Requirements by Reference (NSPS)** - Except where this permit is more restrictive than the applicable requirement, the temporary boiler (ES-TB) shall be operated in compliance with the requirements of 40 CFR 60 Subpart Dc.

Note: All applicable requirements of 40 CFR 60 Subpart Dc may not be specifically listed in this permit. The permittee should refer to the most current version of the applicable regulation for additional or revised requirements not included in this permit.
(9 VAC 5-80-110 and Condition 8 of 3/28/13 NSR Permit)

10. **Fuel Burning Equipment Requirements – (ES-TB) - Requirements by Reference (MACT)** - Except where this permit is more restrictive than the applicable requirement, the temporary boiler (ES-TB) shall be operated to meet the definition of a temporary boiler in 40 CFR 63 Subpart DDDDD to qualify for exemption from the subpart.

    Note: The permittee should refer to the most current version of 40 CFR 63 Subpart DDDDD for additional or revised requirements not included in this permit.
    (9 VAC 5-80-110 and Condition 9 of 3/28/13 NSR Permit)

11. **Fuel Burning Equipment Requirements – (ES-TB)- Permit Invalidation**- This permit to install the temporary boiler (ES-TB) shall become invalid, unless an extension is granted by the DEQ, if the first installation of the temporary boiler is not commenced (because the need for a temporary source of steam supply has not occurred) within the latest of the following:

    a. 18 months from the date of the installation permit;

    b. Nine months from the date that the last permit or other authorization was issued from any other governmental entity; and

    c. Nine months from the date of the last resolution of any litigation concerning any such permits or authorization

    (9 VAC 5-80-110 and Condition 17 of 3/28/13 NSR)

B. Monitoring

12. **Fuel Burning Equipment Requirements – (ES-TB) – Continuing Compliance Determination- Visible Emission Observation**- In any week that distillate oil is the fuel for the temporary boiler (ES-TB) for one day or more, the permittee shall observe the operating temporary boiler (EP-TB) stack at least once per week (Monday-Sunday) during daylight hours of operations for visible emissions for at least six minutes. If visible emissions are noted from the stack, operational adjustment or maintenance shall be performed on the boiler to eliminate the visible emissions. If visible emissions continue after maintenance actions, a visible emissions evaluation (VEE) shall be immediately conducted on the stack for at least six minutes in accordance with Method 9 (40 CFR 60, Appendix A). If the VEE opacity average for the stack exceeds ten percent (10%), the VEE shall continue for one hour from initiation to determine compliance with the opacity limit. If compliance is not demonstrated by this VEE, timely corrective action shall be taken to bring the boiler back to compliance. Results of observations and/or VEEs shall be recorded in the operation log. Records of observations shall include the following:

    The name of the observer,

    Date and time of the observation,

    An indication of presence or absence of visible emissions,

    The color of the visible emissions,

    Whether the emissions are representative of normal operation,

    If emissions are not representative of normal operation, the cause of the abnormal emissions,

    the duration of any visible emission incident, and any corrective action to eliminate visible emissions.

    If a VEE is conducted, records shall be in accordance with Method 9 (40 CFR 60, Appendix A).
    (9 VAC 5-80-110 and Condition 13 of 3/28/13 NSR Permit)

C. Recordkeeping

13. **Fuel Burning Equipment Requirements – (ES-TB) - Recordkeeping** - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Tidewater Regional Office. These records shall include, but are not limited to:

    a. Installation dates and removal dates of the temporary boiler (ES-TB).

    b. Monthly amounts of natural gas and distillate oil combusted by the temporary boiler (ES-TB). Annual consumption of distillate oil shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

    c. All fuel supplier certifications.

    d. Records of the type of fuel in use at any time to demonstrate compliance with Condition 12.

    e. All visible emission evaluations (VEE) in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A), and all visible emission observations.

    f. All semiannual fuel quality reports.

    g. All notifications.

    These records shall be available for inspection by the DEQ and shall be current for the most recent five years.

    (9 VAC 5-80-110 and Condition 14 of 3/28/13 NSR)

D. Testing

14. **Fuel Burning Equipment Requirements – (ES-TB) –Initial Compliance Determination- Visible Emission Evaluation-** Visible Emission Evaluations (VEE) in accordance with 40 CFR Part 60, Appendix A, Method 9, shall be conducted by the permittee on the temporary boiler stack (EP-TB) while firing distillate oil. The tests shall consist of 30 sets of 24 consecutive observations (at 15 second intervals) to yield six-minute averages. The permittee shall submit a test protocol to the Director, Tidewater Regional Office at least 30 days prior to testing for each boiler. The evaluations shall be performed, reported and demonstrate compliance within 60 days after achieving the maximum production rate at which the boiler will be operated but in no event later than 180 days after start-up.
    One copy of test results shall be submitted to the Tidewater Regional Office within 45 days after each test completion and shall conform to the test report format enclosed with this permit
    (9 VAC 5-80-110 and Condition 12 of 3/28/13 NSR Permit)

15. **Fuel Burning Equipment Requirements – (ES-TB) -Testing** - If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.
    (9 VAC 5-80-110)

E. Notification and Reporting

16. **Fuel Burning Equipment Requirements – (ES-TB) – Initial Notifications** – Each time a temporary boiler (ES-TB) is needed at the facility, the permittee shall furnish written notification to the Tidewater Regional Office of:

a. The actual date on which installation of the temporary boiler (ES-TB) commenced within 30 days after such date.

b. The actual start-up date of the temporary boiler (ES-TB) within 15 days after such date.

c. The anticipated date of performance tests of the temporary boiler (ES-TB) postmarked at least 30 days prior to such date.

Copies of the written notifications referenced in items a through c above shall be submitted to:
Associate Director
Office of Air Enforcement and Compliance Assistance (3AP20)
U. S. Environmental Protection Agency Region III
1650 Arch Street
Philadelphia, PA 19103-2029

(9 VAC 5-80-110 and Condition 16 of 3/28/13 NSR Permit)

17. **Fuel Burning Equipment Requirements – (ES-TB) – Semiannual Fuel Quality Reports** - The permittee shall submit fuel quality reports to the Director, Tidewater Regional Office, postmarked no later than the 30th day following the end of each semiannual period ending June 30th and December 31st. If no shipments of distillate oil were received during the semiannual period, the fuel quality report shall consist of the dates included in the semiannual period and a statement that no distillate oil was received during the semiannual period. If distillate oil was received during the reporting period, the report shall include:

a. The dates included in the semiannual period,

b. A copy of all fuel supplier certifications for all shipments of distillate oil received during the reporting period, indicating the supplier, volume of shipment, sulfur content (weight percent) and date the shipment was received.

c. A signed statement from the owner or operator of the facility that the fuel supplier certifications represent all of the distillate oil received during the reporting period.

One copy of the semiannual fuel report shall be submitted to the address in Condition 16.

(9 VAC 5-80-110 and Condition 15 of 3/28/13 NSR Permit)

IV. Fuel Burning Equipment Requirements – Two Natural Gas and Distillate Oil Boilers (Emission Unit ID# ES-B1 and ES-B2)

A. Limitations

18. **Fuel Burning Equipment Requirements – (ES-B1 and ES-B2) – Emission Control** – Nitrogen Oxide (NOx) emissions from the boilers shall be controlled by low NOx burners. The Low NOx burners shall be installed and operated in accordance with manufacturer's specifications.
(9 VAC 5-80-110 and Condition 3 of 2/17/11 NSR permit)

19. **Fuel Burning Equipment Requirements – (ES-B1 and ES-B2) – Fuel Limitations** - The approved fuels for the boilers are natural gas with distillate oil as back-up fuel. A change in the fuels may require a permit to modify and operate.
(9 VAC 5-80-110 and Condition 4 of 2/17/11 NSR permit)

20. **Fuel Burning Equipment Requirements – (ES-B1 and ES-B2) – Fuel Oil Throughput Limitations -** The boilers (ES-B1 and ES-B2) shall consume no more than 2,740,000 gallons of distillate oil per year, combined, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-110 and Condition 5 of 2/17/11 NSR Permit)

21. **Fuel Burning Equipment Requirements – (ES-B1 and ES-B2) – Operating Limitations -** Both boilers (ES-B1 and ES-B2) shall not be in operation at the same time when the temporary boiler (ES-TB, permitted on 3/28/13, provided the permit validation has been maintained) is operating on site except during the transition period when one of the boilers (ES-B1 and ES-B2) is being brought back on line after being down and the temporary boiler (ES-TB) is being taken off line.
(9 VAC 5-80-110 and Condition 6 of 2/17/11 NSR Permit)

22. **Fuel Burning Equipment Requirements – (ES-B1 and ES-B2) – Fuel Specifications** - The distillate oil shall meet the specifications below:

DISTILLATE OIL which meets the ASTM D396 specification for numbers 1 or 2 fuel oil:

Maximum sulfur content per shipment: 0.2 %

(9 VAC 5-80-110, and Condition 7 of 2/17/11 NSR permit)

23. **Fuel Burning Equipment Requirements – (ES-B1 and ES-B2) – Fuel Certification** - The permittee shall obtain a certification from the fuel supplier with each shipment of distillate oil. Each fuel supplier certification shall include the following:

a. The name of the fuel supplier;

b. The date on which the distillate oil was received;

c. The quantity of distillate oil delivered in the shipment;

d. A statement that the distillate oil complies with the American Society for Testing and Materials specifications (ASTM D396) for numbers 1 or 2 fuel oil; and

e. The sulfur content of the distillate oil.

Fuel sampling and analysis, independent of that used for certification, as may be periodically required or conducted by DEQ may be used to determine compliance with the fuel specifications stipulated in Condition 22. Exceedance of these specifications may be considered credible evidence of the exceedance of emission limits.
(9 VAC 5-80-110 and Condition 8 of 2/17/11 NSR permit)

24. **Fuel Burning Equipment Requirements – (ES-B1 and ES-B2) - Requirements by Reference (NSPS) -** Except where this permit is more restrictive than the applicable requirement the boilers (ES-B1 and ES-B2) shall be operated in compliance with the requirements of 40 CFR 60, Subpart Dc.
Note: All applicable requirements of 40 CFR 60 Subpart Dc may not be specifically listed in this permit. The permittee should refer to the most current version of the applicable regulation for additional or revised requirements not included in this permit.

(9 VAC 5-80-110 and Condition 9 of 2/17/11 NSR Permit)

25. **Fuel Burning Equipment Requirements – (ES-B1 and ES-B2) - Requirements by Reference (MACT)** - Except where this permit is more restrictive than the applicable requirement, the boilers (ES-B1 and ES-B2) shall be operated in compliance with the requirements of 40 CFR 63 Subpart DDDDD.
Note: All applicable requirements of 40 CFR 63 Subpart DDDDD may not be specifically listed in this permit. The permittee should refer to the most current version of the applicable regulation for additional or revised requirements not included in this permit.
(9 VAC 5-80-110 and Condition 10 of 2/17/11 NSR Permit)

26. **Fuel Burning Equipment Requirements – (ES-B1 and ES-B2) – Emission Limitations** - Emissions from the operation of the boilers (ES-B1 and ES-B2) shall not exceed the limits specified below:

	Each boiler		Combined
	Natural gas	Distillate oil	
PM (Total)	0.3 lbs/hr	0.9 lbs/hr	5.7 tons/yr
PM-10 (Total)	0.3 lbs/hr	0.7 lbs/hr	4.3 tons/yr
PM-2.5 (Total)	0.3 lbs/hr	0.4 lbs/hr	3.3 tons/yr
Sulfur Dioxide	0.02 lbs/hr	8.1 lbs/hr	39.0 tons/yr
Nitrogen Oxides (as NO_2)	1.4 lbs/hr	5.7 lbs/hr	33.1 tons/yr
	30 ppmvd @ 3% O_2		
Carbon Monoxide	3.3 lbs/hr	1.4 lbs/hr	28.9 tons/yr
Volatile Organic Compounds	0.2 lbs/hr	0.1 lbs/hr	1.9 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 18-23, 27, and 31.
(9 VAC 5-80-110 and Condition 11 of 2/17/11 NSR Permit)

27. **Fuel Burning Equipment Requirements – (ES-B1 and ES-B2) – Visible Emission Limitations** - Visible emissions from each of boilers ES-B1 and ES-B2 shall not exceed ten percent (10%) opacity except during one six-minute period in any one hour in which visible emissions shall not exceed twenty percent (20%) opacity as determined by the EPA Method 9 (Reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.
(9 VAC 5-80-110 and Condition 12 of 2/17/11 NSR Permit)

28. **Fuel Burning Equipment Requirements – (ES-B1 and ES-B2)- Maintenance/Operating procedures** - The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to boilers ES-B1 and ES-B2:

    a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

    b. Maintain an inventory of spare parts.

    c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures, prior to their first operation of such equipment. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.

(9 VAC 5-80-110 and Condition 22 of 2/17/11 NSR Permit)

B. Monitoring

29. **Fuel Burning Equipment Requirements – (ES-B1 and ES-B2) – Continuing Compliance Determination- Visible Emission Observation-** In any week that distillate oil is the fuel in use by boiler ES-B1 or boiler ES-B2 for one day or more, the permittee shall observe the operating boiler stack while firing distillate oil at least once per week (Monday-Sunday) during daylight hours of operations for visible emissions for at least six minutes. If visible emissions are noted from the stack, operational adjustment or maintenance shall be performed on the boiler to eliminate the visible emissions. If visible emissions continue after maintenance actions, a visible emissions evaluation (VEE) shall be immediately conducted on the stack for at least six minutes in accordance with Method 9 (40 CFR 60, Appendix A). If the VEE opacity average for the stack exceeds ten percent (10%), the VEE shall continue for one hour from initiation to determine compliance with the opacity limit. If compliance is not demonstrated by this VEE, timely corrective action shall be taken to bring the boiler back to compliance. Results of observations and/or VEEs shall be recorded in the operation log. Records of observations shall include the following:

The name of the observer,

Date and time of the observation,

An indication of presence or absence of visible emissions,

The color of the visible emissions,

Whether the emissions are representative of normal operation,

If emissions are not representative of normal operation, the cause of the abnormal emissions,

the duration of any visible emission incident, and any corrective action to eliminate visible emissions.

If a VEE is conducted, records shall be in accordance with Method 9 (40 CFR 60, Appendix A).
(9 VAC 5-80-110 and Condition 15 of 2/17/11 NSR Permit)

30. **Fuel Burning Equipment Requirements – (ES-B1 and ES-B2) – Continuing Compliance Determination- Work Practice Standards- Annual Tune-Ups-** The permittee shall conduct a tune-up annually as specified in 40 CFR 63.7540(a)(10) (Table 3 of MACT Subpart DDDDD). Each annual tune-up must be no more than 13 months after the previous tune-up (40 CFR 63.7515(d).

(9 VAC 5-80-110 and 40 CFR 63 Subpart DDDDD)

C. Recordkeeping

31. **Fuel Burning Equipment Requirements – (ES-B1 and ES-B2) - Recordkeeping** - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Tidewater Regional Office. These records shall include, but are not limited to:

a. Monthly amounts of natural gas and distillate oil combusted by each boiler and by both boilers combined (ES-B1 and ES-B2).

b. Annual consumption of distillate oil by each boiler and by both boilers combined shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

c. All fuel supplier certifications.

d. Records of the type of fuel in use at any time to demonstrate compliance with Condition 29.

e. All visible emission evaluations (VEE) in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A), and all visible emission observations.

f. Scheduled and unscheduled maintenance, and operator training

g. All semiannual fuel quality reports.

h. A copy of each notification and report that the permittee submitted to comply with MACT DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status (40 CFR 63.7555(a)(1)).

i. Information on all tune-ups, including the date, collected data, corrective action and fuel used, to submit if requested by EPA or DEQ (40 CFR 63.7540(a)(10)(vi)).

j. Total hours per calendar year that distillate oil is burned by each of the boilers ES-B1 and ES-B2, and the total hours per calendar year that the unit operated during periods of gas curtailment or gas supply emergencies (40 CFR 63.7555(h)).

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-80-110, Condition 16 of 2/17/11 NSR permit, and 40 CFR 63.7555)

D. Testing

32. **Fuel Burning Equipment Requirements – (ES-B1 and ES-B2) -Testing** - The boilers shall be constructed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. Sampling ports shall be provided when requested at the appropriate locations and safe sampling platforms and access shall be provided.

(9 VAC 5-80-110 and Condition 13 of 2/17/11 NSR Permit)

33. **Fuel Burning Equipment Requirements – (ES-B1 and ES-B2) -Testing** - If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.
(9 VAC 5-80-110)

E. Notification and Reporting

34. **Fuel Burning Equipment Requirements – (ES-B1 and ES-B2) – Notification of Subcategory Change-** If the permittee has switched fuels or made a physical change to the boiler(s) and the fuel switch or physical change resulted in the applicability of a different subcategory, you must provide notice of the date upon which you switched fuels or made the physical change within 30 days of the switch/change. The notification must identify:

a. The name of the owner/operator of the affected source, the location of the source, the boiler(s) that have switched fuels or were physically changed, and the date of the notice (40 CFR 63.7545(h)(1)).

b. The currently applicable subcategory under MACT Subpart DDDDD (40 CFR 63.7545(h)(2)).

c. The date upon which the fuel switch or physical change occurred (40 CFR 63.7545(h)(3)).

(9 VAC 5-80-110 and MACT Subpart DDDDD)

35. **Fuel Burning Equipment Requirements – (ES-B1 and ES-B2) – Annual Compliance Report** – The permittee shall submit annual compliance reports no later than January 31 each year, covering the period from January 1 to December 31 the previous year (40 CFR 63.7550(b)). The report shall include the following information (40 CFR 63.7550(c)(1)):

a. The company and facility name and address (40 CFR 63.7550(c)(5)(i)).

b. The boilers information (40 CFR 63.7550(c)(5)(ii)).

c. The date of report and the beginning and ending dates of the reporting period (40 CFR 63.7550(c)(5)(iii)).

d. The total operating time during the reporting period (40 CFR 63.7550(c)(5)(iv)).

e. The date of the most recent tune-up for each boiler (40 CFR 63.7550(c)(5)(xiv)).

The annual compliance report must be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) which is accessed through the EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). However, if the reporting form is not available in CEDRI at the time that the report is due, you must submit the report to the address in Condition 36 (40 CFR 63.7550(h)(3)).

(9 VAC 5-80-110 and MACT Subpart DDDDD)

36. **Fuel Burning Equipment Requirements – (ES-B1 and ES-B2) – Semiannual Fuel Quality Reports -** The permittee shall submit fuel quality reports to the Director, Tidewater Regional Office, postmarked no later than the 30th day following the end of each semiannual period ending June 30th and December 31st. If no shipments of distillate oil were received during the semiannual period, the fuel quality report shall consist of the dates included in the semiannual period and a statement that no distillate oil was received during the semiannual period. If distillate oil was received during the reporting period, the report shall include:

a. The dates included in the semiannual period,

b. A copy of all fuel supplier certifications for all shipments of distillate oil received during the reporting period, indicating the supplier, volume of shipment, sulfur content (weight percent) and date the shipment was received.

c. A signed statement from the owner or operator of the facility that the fuel supplier certifications represent all of the distillate oil received during the reporting period.

One copy of the semiannual fuel report shall be submitted to:

Associate Director
Office of Air Enforcement and Compliance Assistance (3AP20)
U. S. Environmental Protection Agency Region III
1650 Arch Street
Philadelphia, PA 19103-2029

(9 VAC 5-80-110 and Condition 17 of 2/17/11 NSR Permit)

V. Fuel Burning Equipment Requirements- Emergency Air Compressor (Emission Unit ID# EAC1)

A. Limitations

37. **Fuel Burning Equipment Requirements – (EAC1) – Operating Limitations-** The emergency air compressor (EAC1) shall be operated only during interruption of service from the normal air supplier, periodic maintenance testing, and operational training. The total hours of operation shall not exceed 500 hours per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

(9 VAC 5-80-110, and 9 VAC 5-80-1105 B 2)

38. **Fuel Burning Equipment Requirements – (EAC1) – Fuel Limitations-** The approved fuel for the engine used to power the emergency air compressor (EAC1) is diesel fuel. A change in the type of fuel used may require a permit to modify and operate.

The diesel fuel shall meet the requirements of 40 CFR 80.510(b):

Maximum sulfur content: 0.0015 % by weight

(9 VAC 5-80-110, and 40 CFR 60.4207(b))

39. **Fuel Burning Equipment Requirements – (EAC1)- Fuel Certification -** The permittee shall obtain a certification from the fuel supplier with each shipment of diesel oil for the emergency air compressor (EAC1). Each fuel supplier certification shall include the following:

a. The name of the fuel supplier;

b. The date on which the diesel oil was received;

c. The volume of diesel oil delivered in the shipment;

d. The maximum sulfur content of the diesel oil, and/or a statement that the diesel oil complies with 40 CFR 80.510 (b).

(9 VAC 5-80-110, and 40 CFR 60.4207 (b))

40. **Fuel Burning Equipment Requirements – (EAC1) - Monitoring Device Requirement-** The permittee shall install a non-resettable hour meter prior to start-up of the emergency air compressor (EAC1).

(9 VAC 5-80-110 and 40 CFR 60.4209(a))

41. **Fuel Burning Equipment Requirements – (EAC1)- Operating and Maintenance Requirements-**

a. The permittee shall operate and maintain the emergency air compressor (EAC1) according to the manufacturer's written instructions or procedures developed by the permittee that are approved by the engine manufacturer (40 CFR 60.4211(a)).

b. The permittee may operate the emergency air compressor (EAC1) for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing is limited to 100 hours per year (40 CFR 60.4211(f)).

(9 VAC 5-80-110 and 40 CFR 60 Subpart IIII)

42. **Fuel Burning Equipment Requirements – (EAC1)- Emission Limits** - Emissions from the operation of the stationary diesel engine used to power the emergency air compressor (EAC1) shall not exceed the limits specified below:

	NSPS standards	Emission Limits	
Particulate Matter (PM)	0.4 g/hp-hr	0.2 lbs/hr	0.1 tons/yr
Nitrogen Oxides	6.9 g/hp-hr	3.0 lbs/hr	0.7 tons/yr
Carbon Monoxide	8.5 g/hp-hr	3.7 lbs/hr	0.9 tons/yr
Hydrocarbons (HC)	1.0 g/hp-hr	0.4 lbs/hr	0.1 tons/yr

All emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers 37-41, 43, and 45.
(9 VAC 5-80-1180, 9 VAC 5-50-260, and 40 CFR 60 Subpart IIII, Table 1)

43. **Fuel Burning Equipment Requirements – (EAC1)- Visible Emission Limits** - Visible emissions from the operation of the emergency air compressor (EAC1) shall not exceed 10 percent opacity, except during one six-minute period in any one hour in which visible emissions shall not exceed 20 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.

9 VAC 5-80-110 and 9 VAC 5-50-80)

44. **Fuel Burning Equipment Requirements – (EAC1)- Requirements by Reference** - Except where this permit is more restrictive than the applicable requirements, the emergency air compressor (EAC1) shall be operated in compliance with the requirements of 40 CFR 60 Subpart IIII-National Emission Standards for Stationary Compression Ignition Internal Combustion Engines.

Note: All applicable requirements of 40 CFR 60 Subpart IIII may not be specifically listed in this permit. The permittee should refer to the most current version of the applicable regulation for additional or revised requirements not included in this permit.

(9 VAC 5-80-110)

B. Monitoring and Recordkeeping

45. **Fuel Burning Equipment Requirements – (EAC1)- On-site Records** - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Tidewater Regional Office. These records shall include, but are not limited to:

a. Annual hours of operation for the emergency air compressor (EAC1), calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months;

b. All fuel supplier certifications;

c. Operating procedures and maintenance records;

d. Engine emissions certification that shows compliance with the emission standards listed in 40 CFR 60, Subpart IIII, Table 1, for the appropriate engine size category.

These records shall be available for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110 and 40 CFR 60.4211(b))

VI. Fuel Burning Equipment Requirements- Emergency Fire Pump, and Emergency Well Pumps #4 and #5

A. Limitations

46. **Emergency Fire Pump, and Emergency Well Pumps #4 and #5- Limitations-** The operation of each of the emergency engines shall meet the definition of an emergency stationary RICE in 9 VAC 5-80-1110 and 40 CFR 63.6675, and shall not exceed the operating hour limitations in 40 CFR 63.6640(f) and the 500 hours total operation per year limit in 9 VAC 5-80-1105 B.

(9 VAC 5-80-110 and 40 CFR 63 Subpart ZZZZ)

47. **Emergency Fire Pump, and Emergency Well Pumps #4 and #5- Limitations- Operation and Maintenance Practice-**

The permittee shall meet the following requirements as required by 40 CFR 63.6602 and Table 2c in 40 CFR 63 Subpart ZZZZ:

a. Change oil and filter every 500 hours of operation or annually, whichever comes first;

b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and

c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in accordance with 40 CFR 63.6625(i).

The permittee must operate and maintain each emergency engine according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions (40 CFR 63.6625(e)).

The permittee must minimize each engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes (40 CFR 63.6625(h)).
(9 VAC 5-80-110 and 40 CFR 63 Subpart ZZZZ)

48. **Emergency Fire Pump, and Emergency Well Pumps #4 and #5- Limitations- Requirements by Reference** - Except where this permit is more restrictive than the applicable requirements, the emergency fire pump, and the emergency well pumps #4 and #5 shall be operated in compliance with the requirements of 40 CFR 63 Subpart ZZZZ-National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

Note: All applicable requirements of 40 CFR 63 Subpart ZZZZ may not be specifically listed in this permit. The permittee should refer to the most current version of the applicable regulation for additional or revised requirements not included in this permit.

(9 VAC 5-80-110)

B. Monitoring and Recordkeeping

49. **Emergency Fire Pump, and Emergency Well Pumps #4 and #5- Monitoring-** Each emergency engine shall be equipped with a non-resettable hour meter to continuously monitor the operating hours (40 CFR 63.6625(f)).

(9 VAC 5-80-110 and 40 CFR 63 Subpart ZZZZ)

50. **Emergency Fire Pump, and Emergency Well Pumps #4 and #5- On-site Records-** The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Tidewater Regional Office. These records shall include, but are not limited to:

a. The hours of operation of each of the emergency engines as recorded through the non-resettable hour meter, including the hours spent for emergency operation and the hours spent on non-emergency operation, and documentation for emergency operation (40 CFR 63.6655(f)).

b. Operation and maintenance records for the emergency engines in accordance with Condition 47 (40 CFR 63.6655(e)).

c. Any reports for the emergency engines in accordance with Condition 51.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110 and 40 CFR 63 Subpart ZZZZ)

C. Reporting

51. **Emergency Fire Pump, and Emergency Well Pumps #4 and #5- Reporting-** If any of the emergency engines is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2c of MACT Subpart ZZZZ, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable (Footnote 1 of Table 2c of 40 CFR 63 Subpart ZZZZ)

(9 VAC 5-80-110 and 40 CFR 63 Subpart ZZZZ)

VII. Aquapel® Process Equipment Requirements – (Emission Groups AQE01 to 19, and WWE10 and 11)

A. Limitations

52. **Aquapel® Process Equipment Requirements – Emission Controls** - Hydrogen halide emissions from the Aquapel® process (Emission Groups AQE02 to AQE09) shall be routed through a closed vent system to a packed scrubber (PCD ID# AQC01) with a minimum control efficiency of ninety percent (90%).

The maximum concentration of hydrogen halide at the influent liquid flow to the scrubber shall not exceed 3.58 % by weight that corresponds to a pH $\leq$ 2.5 s.u.

The minimum liquid to gas (L/G) ratio of the scrubber shall not fall below 20.66 gallons per 1,000 actual cubic feet.

The above monitoring parameter values have been established by performance tests that demonstrate compliance with MACT Subpart FFFF (see Notice of Compliance Status Report, October 2008). Any change request must be submitted to the Director, Tidewater Regional Office for approval. New performance tests may be required.

The packed scrubber shall be provided with adequate access for inspection.

(9 VAC 5-80-110, Condition 3 of 12/07/04 SOP, and 40 CFR 63.2450(g))

53. **Aquapel® Process Equipment Requirements – Emission Limits** - The halogen mass emission rate from the packed scrubber vent (PCD ID #AQC01, Stack ID# AQS01) shall be $\leq$ 0.45 kg/hr. This limit applies at all times except during periods of startup, shutdown, and malfunction.

(9 VAC 5-80-110, 40 CFR 63.2450(a), 2450(c)(2) and Table 3 of MACT Subpart FFFF)

54. **Aquapel® Process Equipment Requirements – Emission Controls** - Volatile organic compounds emissions from all Group 1 batch process vents, Group 1 continuous process vents, and Group 1 storage tanks in the Aquapel® process (Emission Groups AQE10 to AQE18) shall be routed through a closed vent system to the condenser (PDC ID# AQC02) and a carbon adsorber (PDC ID# AQC03) with a combined minimum control efficiency of ninety-five percent (95%).

The condenser exit gas temperature shall not exceed 116.1°F for E-1001 and 120.3° for E-606 on a daily average basis.

The carbon adsorber shall be operated at a minimum steam flow of 265 lb/regeneration cycle and a maximum bed temperature of 125°C within 15 minutes after the regeneration cycle and before a cooling cycle.

The carbon adsorber shall be regenerated by steam every consecutive twelve (12) hours or less.

The maximum concentration of volatile organic compounds from the outlet of the carbon adsorber shall not exceed 50,000 ppmv measured by a Gas Analyzer. The instrument detector shall be suitable for the analysis of total target VOC compounds, properly calibrated, and corrected to the target VOC compounds, using manufacturer-supplied correction factors. The list of target VOC compounds shall be approved by the Director, Tidewater Regional Office.

The above monitoring parameter values have been established by performance tests that demonstrate compliance with MACT Subpart FFFF (see Notice of Compliance Status Report, October 2008). Any change request must be submitted to the Director, Tidewater Regional Office for approval. New performance tests may be required.

The condenser and the carbon adsorber shall be provided with adequate access for inspection.

(9 VAC 5-80-110, Condition 5 of 12/07/04 SOP, and 40 CFR 63.2450(c)(2)(i) and 63.2450(g))

55. **Aquapel® Process Equipment Requirements –Work Practice for Storage Tanks** - Emission control requirements for storage tanks do not apply during periods of planned routine maintenance.
(9 VAC 5-80-110 and 40 CFR 63.2470(d))

56. **Aquapel® Process Equipment Requirements – Work Practice for Safety Devices** - Opening a safety device as defined in 40 CFR 63.2550 is allowed at any time conditions require it to avoid unsafe conditions.
(9 VAC 5-80-110 and 40 CFR 63.2450(p))

57. **Aquapel® Process Equipment Requirements – Production Limit** - The annual usage of fatty acid in the Aquapel® process shall not exceed 48.6 million pounds, calculated monthly as the sum of each consecutive 12-month period.
(9 VAC 5-80-110 and Condition 10 of 12/07/04 SOP)

58. **Aquapel® Process Equipment Requirements – Emission Limits** - Point emissions from the condenser/carbon adsorber outlet of the Aquapel® process (PDC ID# AQC02 and AQC03, Stack ID# AQS02) shall not exceed the limits specified below:

Volatile Organic Compounds	2.2 lbs/hr	9.7 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers 54, 57, 64-70, 71, and 74.
(9 VAC 5-80-110 and Condition 11 of 12/07/04 SOP)

59. **Aquapel® Process Equipment Requirements – Emission Limits** - Total emissions (points and fugitive sources) from the operation of the Aquapel® and Wastewater Treatment processes shall not exceed the limits specified below:

Volatile Organic Compounds	92.9 tons/yr

These emission are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers 54-57, 64-70, 71, and 74.

(9 VAC 5-80-110 and Condition 12 of 12/07/04 SOP)

60. **Aquapel® Process Equipment Requirements –Requirements by Reference**- Except where this permit is more restrictive than the applicable requirements, the Aquapel® process equipment shall be operated in compliance with the requirements of 40 CFR 63 Subpart FFFF-National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing.

Note: All applicable requirements of 40 CFR 63, Subpart FFFF may not be specifically listed in this permit. The permittee should refer to the most current version of the applicable regulation for additional or revised requirements not included in this permit.
(9 VAC 5-80-110 and 9 VAC 5-60-100)

61. **Aquapel® Process Equipment Requirements – Limitations- Violation of Ambient Air Quality Standard**- The permittee shall, upon request of the DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.
(9 VAC 5-80-110, and Condition 18 of 12/07/04 SOP)

B. Monitoring

62. **Aquapel® Process Equipment Requirements – Monitoring- Packed Scrubber (PCD ID# AQC01) Continuous Parameter Monitoring**- The packed scrubber shall be equipped with a flow meter capable of providing a continuous record of scrubber influent liquid flow. The design blower capacity (3,000 scfm) can be used for the gas flow rate to derive the liquid-to-gas (L/G) ratio.

Each monitoring device shall be installed, maintained, calibrated, and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations.

Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the packed scrubber is operating.

(9 VAC 5-80-110, Condition 4 of 12/07/04 SOP, 40 CFR 63.2450(k), and 40 CFR 63.994(c)(ii), 996(c)(1) and 996(c)(5))

63. **Aquapel® Process Equipment Requirements – Monitoring- Packed Scrubber (PCD ID# AQC01) Periodic Parameter Monitoring** - The permittee shall monitor and record the pH or hydrogen halide concentration of the scrubber effluent at least once per day.

(9 VAC 5-80-110 E, Condition 4 of 12/07/04 SOP, and 40 CFR 63.2450(k)(3))

64. **Aquapel® Process Equipment Requirements – Monitoring- Condenser (AQC02) Continuous Parameter Monitoring**- The condenser shall be equipped with a temperature monitoring device capable of providing a continuous record of the condenser exit temperature.

Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations.

Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the condenser/carbon adsorber system (PDC ID No. AQC02 and AQC03) is operating.

(9 VAC 5-80-110E, Condition 6 of 12/07/04 SOP, 40 CFR 63.2450(k), and 40 CFR 63.990(c)(2), 996(c)(1) and 996(c)(5))

65. **Aquapel® Process Equipment Requirements – Monitoring- Carbon Adsorber (AQC03) Continuous Parameter Monitoring-** The carbon adsorber (AQC03) shall be equipped with an integrating regeneration steam flow monitoring device having an accuracy of ±10 percent or better, capable of recording the total regeneration steam mass or volumetric flow for each regeneration cycle; and a carbon bed temperature monitoring device, capable of recording the carbon bed temperature after each regeneration and within 15 minutes of completing any cooling cycle.

The carbon adsorber regeneration flow stream mass or volumetric flow for each regeneration cycle must be monitored for each regeneration cycle. The carbon bed temperature shall be monitored after each regeneration and within 15 minutes of completing any cooling cycle.
(9 VAC 5-80-110E, Condition 6 of 12/07/04 SOP, and 40 CFR 63.990(c)(3))

66. **Aquapel® Process Equipment Requirements – Monitoring- Carbon Adsorber (AQC03) Periodic Emission Monitoring-** The permittee shall determine the concentration of volatile organic compounds in ppmv at the carbon adsorber vent (Unit Ref. No. AQS02) at least once quarterly by a Gas Analyzer. The instrument detector shall be suitable for the analysis of target VOC compounds, properly calibrated, and corrected, using manufacturer-supplied correction factors. Results shall be recorded.
(9 VAC 5-80-110E, and Condition 6 of 12/07/04 SOP)

67. **Aquapel® Process Equipment Requirements – Monitoring- Bypass Valve Monitoring** The bypass valve in the condenser /adsorber (AQC02/AQC03) closed vent system shall be equipped with a flow indicator capable of taking periodic readings at least once every 15 minutes at the entrance of the bypass line.
(9 VAC 5-80-110 and 40 CFR 63.983(a)(3)(i))

68. **Aquapel® Process Equipment Requirements – Monitoring- Closed Vent System Inspection-** Closed vent systems constructed of hard piping shall be inspected annually for visible, audible, or olfactory indication of leaks. Closed vent systems constructed of duct work shall be inspected annually according to Method 21 of 40 CFR part 60, Appendix A.
(9 VAC 5-80-110 and 40 CFR 63.983(b)(1))

69. **Aquapel® Process Equipment Requirements – Monitoring- Operation and Maintenance Requirements for Continuous Parameter Monitoring Systems (CPMS)-** The permittee shall maintain and operate each continuous parameter monitoring system (CPMS) as follows:

a. The permittee shall ensure the immediate repair or replacement of CPMS parts to correct "routine" or otherwise predictable CPMS malfunctions. The necessary parts for routine repairs of the affected equipment shall be readily available.

b. The permittee shall follow the SSMP procedures and record CPMS repairs.

c. All CPMS's shall be installed and operational either prior to or in conjunction with conducting performance tests. Verification of operational status shall, at a minimum, include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.

d. The permittee shall maintain and operate each CPMS in a manner consistent with good air pollution control practices

e. All CPMS's shall be installed such that representative measurements of parameters from the regulated source are obtained.

f. Except for system breakdowns, repairs, maintenance periods, instrument adjustments, or checks to maintain precision and accuracy, calibration checks, and zero and span adjustments, all continuous parameter monitoring systems shall be in continuous operation when emissions are being routed to the monitored device.

(9 VAC 5-80-110E, 40 CFR 63.2450(k), and 40 CFR 63.996(c))

70. **Aquapel® Process Equipment Requirements – Monitoring- Startup, Shutdown, and Malfunction Plan (SSMP) Requirement-**

a. The permittee shall develop a written SSMP that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the relevant standard (63.6(e)(3)(i)).

b. During periods of startup, shutdown, and malfunction, the permittee shall operate and maintain the affected source (including associated air pollution control and monitoring equipment) in accordance with the procedures specified in the SSMP (63.6(e)(3)(ii)).

c. The permittee must maintain at the affected source a current SSMP and must make the plan available upon request for inspection and copying by the VDEQ. In addition, if the SSMP is subsequently revised, the permittee must maintain at the affected source each previous (i.e., superseded) version of the SSMP, and must make each such previous version available for inspection and copying by the VDEQ for a period of 5 years after revision of the plan. The VDEQ may at any time request in writing that the permittee submit a copy of any SSMP (or a portion thereof) which is maintained at the affected source or in the possession of the permittee. Upon receipt of such a request, the permittee must promptly submit a copy of the requested plan (or a portion thereof) to the VDEQ. The permittee may elect to submit the required copy of any SSMP to the VDEQ in an electronic format. If the owner or operator claims that any portion of such a SSMP is confidential business information entitled to protection from disclosure under section 114(c) of the Act or 40 CFR 2.301, the material which is claimed as confidential must be clearly designated in the submission 63.6(e)(3)(v)).

d. The permittee may use the affected source's standard operating procedures (SOP) manual, an Occupational Safety and Health Administration (OSHA) plan, or other plan, provided the alternative plans meet all the requirements of this section and are made available for inspection when requested by the VDEQ (63.6(e)(3)(vi)).

e. The VDEQ may require that the permittee of an affected source make changes to the SSMP for an affected source based on the review of monitoring data and/or the plan. The VDEQ may require reasonable revisions to a SSMP, if the VDEQ finds that the plan (63.6(e)(3)(vii)):

i. Does not address a startup, shutdown, or malfunction event that has occurred;

ii. Fails to provide for the operation of the source (including associated air pollution control equipment) during a startup, shutdown, or malfunction event in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards; or

iii. Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control equipment as quickly as practicable.

f. If the SSMP fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the SSMP at the time the permittee developed the plan, the permittee shall revise the SSMP within 45 days after the event to include detailed procedures for operating and maintaining the source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control equipment (63.6(e)(3)(viii)).

(9 VAC 5-80-110, 40 CFR 2525(j), and 63.6(e)(3))

C. Recordkeeping

71. **Aquapel® Process Equipment Requirements – On-site Records-** The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Tidewater Regional Office. These records shall include, but are not limited to:

a. Annual usage of fatty acid in the Aquapel® process, calculated monthly as the sum of each consecutive 12-month period.

b. The annual point emissions for volatile organic compounds from the Aquapel® process, calculated monthly as the sum of each consecutive 12-month period.

c. Annual total (point and fugitive) emissions for volatile organic compounds from the Aquapel® process, calculated monthly as the sum of each consecutive 12-month period.

d. Daily records of pH or hydrogen halide concentration (% by weight) of the packed scrubber (Unit Ref. No. AQC01) effluent liquid.

e. Records of dates and times of recycling cycles of the carbon adsorber (Unit Ref. No. AQC03).

f. Gas Analyzer records of quarterly measurement of VOC concentration emitted from the carbon adsorber vent (Stack Ref. No. AQS02).

g. Records of each operating scenario as follows (40 CFR 63.2525(b)):

i. A description of the process and the type of process equipment used.

ii. An identification of related process vents, including their associated emissions episodes, wastewater point of determination (POD), storage tanks; and transfer racks.

iii. The applicable control requirements of Subpart FFFF, including the level of required control, and for vents, the level of control for each vent.

iv. The control device or treatment process used, as applicable, including a description of operating and/or testing conditions for any associated control device.

v. The process vents, wastewater POD, transfer racks, and storage tanks (including those from other processes) that are simultaneously routed to the control device or treatment process(s).

vi. The applicable monitoring requirements of Subpart FFFF and any parametric level that assures compliance for all emissions routed to the control device or treatment process.

vii. Calculations and engineering analyses required to demonstrate compliance.

viii. For reporting purpose, a change to any of the above elements in this subsection not previously reported, except for paragraph (v), constitutes a new operating scenario.

h. The permittee shall keep a schedule or log of operating scenarios for processes with batch vents from batch operations updated each time a different operating scenario is put into effect (40 CFR 63.2525(c)).

i. The owner or operator shall keep up-to-date, readily accessible continuous records of the conditions and data measured during each performance test and include it in the NOCS report. The same data shall be submitted in the reports of any subsequently required performance tests (40 CFR 63.998 (a)(2)(ii)(A)).

j. For the continuous records required for the continuous monitoring of the scrubber (AQC01) liquid influent flow and the condenser (AQC02) exit gas temperatures, the permittee shall maintain the following (40 CFR 63.998(b)(1)):

   i. A record of values measured at least once every 15 minutes or each measured value for systems which measure more frequently than once every 15 minutes; or

   ii. A record of block average values for 15-minute or shorter periods calculated from all measured data values during each period or from at least one measured data value per minute if measured more frequently than once per minute.

   iii. Where data is collected from an automated continuous parameter monitoring system, the owner or operator may calculate and retain block hourly average values from each 15-minute block average period or from at least one measured value per minute if measured more frequently than once per minute, and discard all but the most recent three valid hours of continuous (15-minute or shorter) records, if the hourly averages do not exclude periods of CPMS breakdown or malfunction. An automated CPMS records the measured data and calculates the hourly averages through the use of a computerized data acquisition system.

k. Monitoring and data recorded during the following shall not be included in average computed to determine compliance with an emission limit (40 CFR 63.998(b)(2)):

   i. Monitoring system breakdowns, repairs, preventative maintenance, calibration checks, and zero (low level) and high level adjustments.

   ii. Periods of non-operation of the process unit (or portion thereof), resulting in cessation of emissions to which the monitoring applies.

l. Daily average values records:

   i. The daily average shall be calculated as the average of all values for a monitored parameter recorded during the operating day. The average shall cover a 24-hour period if operation is continuous, or the period of operation per operating day if operation is not continuous. If values are measured more frequently than once per minute, a single value for each minute may be used to calculate the daily average instead of all measured values (40 CFR 63.998(b)(3)(i)).

   ii. If all recorded values for a monitored parameter during an operating day are within the operating limits established in the Notification of Compliance Status or in the operating permit, the owner or operator may record that all values were within operating limits rather than calculating and recording a daily average for that operating day. In such cases, the owner or operator may not discard the recorded values (40 CFR 63.998(b)(3)(ii)).

m. For the carbon adsorber regeneration stream flow and carbon bed regeneration temperature monitoring, the following records shall be kept instead of the daily averages:

   i. Records of total regeneration stream mass or volumetric flow for each carbon-bed regeneration cycle (40 CFR 63.998(c)(3)(ii)(A)).

   ii. Records of the temperature of the carbon bed after each regeneration and within 15 minutes of completing any cooling cycle (40 CFR 63.998(c)(3)(ii)(B)).

n. Records of the planned routine maintenance performed on the control system during which the control system does not meet the applicable operating limits due to the planned routine maintenance. Such a record shall include the following information (40 CFR 63.998(d)(2)(ii)):

   i. The first time of day and date the requirements were not met at the beginning of the planned routine maintenance;

   ii. The first time of day and date the operating limits were met at the conclusion of the planned routine maintenance, and

   iii. A description of the type of maintenance performed.

o. Continuous parameter monitoring system (CPMS) records (40 CFR 63.998(c)(1) and 40 CFR 63.2525(g)):

   i. A record of the procedure used for calibrating the CPMS and results of each CPMS calibration check and the maintenance performed.

   ii. The date and time of completion of calibration and preventive maintenance of the CPMS.

   iii. The "as found" and "as left" CPMS readings, whenever an adjustment is made that affects the CPMS reading and a "no adjustment" statement otherwise.

   iv. The start time and duration or start and stop times of any periods when the CPMS is inoperative.

   v. Records of the occurrence and duration of each start-up, shutdown, and malfunction of CPMS used to comply with this subpart during which excess emissions occur.

   vi. For each start-up, shutdown, and malfunction during which excess emissions occur, records whether the procedures specified in the source's start-up, shutdown, and malfunction plan were followed, and documentation of actions taken that are not consistent with the plan. These records may take the form of a "checklist," or other form of recordkeeping that confirms conformance with the start-up, shutdown, and malfunction plan for the event.

   vii. Records documenting each start-up, shutdown, and malfunction event.

   viii. Records of CPMS start-up, shutdown, and malfunction event that specify that there were no excess emissions during the event, as applicable.

   ix. Records of the total duration of operating time.

p. Startup, Shutdown, and Malfunction Plan (SSMP) (40 CFR 63.2525(j)).

q. Closed vent system records:

   i. The identification of all parts of the closed vent system that are designated as unsafe or difficult to inspect, an explanation of why the equipment is unsafe or difficult to inspect, and the plan for inspecting the equipment (40 CFR 63.998(d)(1)(i)).

   ii. For the bypass valve flow indicator at the entrance of the bypass line, a record of whether the flow indicator was operating and whether a diversion was detected at any time during the hour, as well as records of the times of all periods when the vent stream is diverted from the control device or the flow indicator is not operating (40 CFR 63.998(d)(1)(ii)).

   iii. When a leak is detected, records of the instrument and the equipment identification number, the operator name, initials, or identification number, the date the leak was detected and the date of the first attempt to repair the leak, the date of successful repair of the leak, the maximum instrument reading measured after the leak is successfully repaired or determined to be non-repairable, reasons for the delay if a leak is not repaired within 15 days after discovery of the leak (40 CFR 63.998(d)(1)(iii).

iv. For each instrumental or visual inspection conducted for closed vent systems during which no leaks are detected, the owner or operator shall record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected (40 CFR 63.998(d)(1)(iv)).

r. Records of the occurrence and duration of each start-up, shutdown, and malfunction of operation of process equipment or of air pollution control equipment used to comply with this part during which excess emissions occur. For each start-up, shutdown, and malfunction during which excess emissions occur, records that the procedures specified in the source's start-up, shutdown, and malfunction plan were followed, and documentation of actions taken that are not consistent with the plan. These records may take the form of a "checklist," or other form of recordkeeping that confirms conformance with the start-up, shutdown, and malfunction plan for the event (40 CFR 63.998(d)(3) .

s. Periods of operation during which the monitored parameters are outside of operating limits (40 CFR 63.998(d)(5).

t. Records of each time a safety device is opened to avoid unsafe conditions (40 CFR 63.2525(f)).

These records shall be available for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110, Condition 14 of 12/07/04 SOP, and 40 CFR 63.2525)

D. Testing

72. **Aquapel® Process Equipment Requirements – Testing-** The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.

(9 VAC 5-80-110 and Condition 9 of 12/07/04 SOP)

73. **Aquapel® Process Equipment Requirements – Testing-** If performance tests for continuing compliance demonstration is required in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with 40 CFR 63.997.

(9 VAC 5-80-110 and 40 CFR 63.2450(g))

E. Reporting

74. **Aquapel® Process Equipment Requirements – Semiannual Compliance Reports-** The permittee shall submit semiannual compliance reports that must be postmarked or delivered no later than August 31 or February 28, whichever date is the first date following the end of the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Compliance reports must contain the following information:

a. Company name and address.

b. Statement by a responsible official with that official's name, title, and signature, certifying the accuracy of the content of the report

c. Date of report and beginning and ending dates of the reporting period.

d. For each SSM during which excess emissions occur, the compliance report must include records that the procedures specified in the startup, shutdown, and malfunction plan (SSMP) were followed or documentation of actions taken that are not consistent with the SSMP, and include a brief description of each malfunction (40 CFR 63.2520(e)(4)).

e. The compliance report must contain the information on deviations, as follows (40 CFR 63.2520(e)(5)).

i. If there are no deviations from any emission limit, operating limit or work practice standard specified in this subpart, include a statement that there were no deviations from the emission limits, operating limits, or work practice standards during the reporting period.

ii. For each deviation from an emission limit, operating limit, and work practice standard that occurs at an affected source where the permittee is not using a continuous monitoring system (CMS) to comply with the emission limit or work practice standard, the permittee must include:

(a) The total operating time of the affected source during the reporting period.

(b) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable and the corrective action taken

(c) Operating logs of processes with batch vents from batch operations for the day(s) during which the deviation occurred, except operating logs are not required for deviations of the work practice standards for equipment leaks.

iii. For each deviation from an emission limit or operating limit occurring at an affected source where a CMS is used to comply with an emission limit, the permittee must include the following information (this includes periods of SSM):

(a) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.

(b) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(c) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total operating time of the affected source during that reporting period.

(d) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(e) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the affected source during that reporting period.

(f) An identification of each HAP that is known to be in the emission stream.

(g) A brief description of the process units.

(h). A brief description of the CMS.

(i) The date of the latest CMS certification or audit.

(j) Operating logs of processes with batch vents from batch operations for each day(s) during which the deviation occurred.

(k) The operating day or operating block average values of monitored parameters for each day(s) during which the deviation occurred.

f. The permittee shall include each new or revised operating scenario which has been operated since the time period covered by the last compliance report and has not been submitted in the notification of compliance status report or a previous compliance report. For each new operating scenario, the permittee must provide verification that the operating conditions for any associated control or treatment device have not been exceeded and that any required calculations and engineering analyses

have been performed. For the purposes of this paragraph, a revised operating scenario for an existing process is considered to be a new operating scenario (40 CFR 63.2520(e)(7)).

g. If a process change is made or any of the information submitted in the notification of compliance status report or a previous compliance report is changed, that is not within the scope of an existing operating scenario, the change must be documented in the compliance report. A process change does not include moving within a range of conditions identified in the standard batch, and a nonstandard batch does not constitute a process change. The notification must include the following (40 CFR 63.2520(e)(10)(i)).

   i. A description of the process change.

   ii. Revisions to any of the information reported in the original notification of compliance status report.

   iii. Information required by the notification of compliance status report involving the addition of processes or equipment at the affected source.

h. For closed vent systems, the permittee shall include the following information (40 CFR 63.999(c)(2) as referenced from 63.2520(e)(9)).

   i. The information recorded as required by 40 CFR 63.998(d)(1)(iii)(B) through (E) when a leak is detected.

   ii. Reports of the times of all periods recorded under §63.998(d)(1)(ii)(A) when the vent stream is diverted from the control device through a bypass line; and

   iii. Reports of all times recorded under §63.998(d)(1)(ii)(B) when maintenance is performed in car-sealed valves, when the seal is broken, when the bypass line valve position is changed, or the key for a lock-and-key type configuration has been checked out.

i. For storage vessels, the permittee shall include the information required by 40 CFR 63.999(c)(4) as referenced from 63.2520(e)(9):

   i. The information recorded as required by 40 CFR 63.998(d)(2)(ii)(A) through (C).

   ii. For the time period covered by the periodic report and the previous periodic report, the total number of hours that the control system did not meet the operating limits due to planned routine maintenance.

   iii. A description of the planned routine maintenance during the next 6-month periodic reporting period that is anticipated to be performed for the control system when it is not expected to meet the required control efficiency. This description shall include the type of maintenance necessary, planned frequency of maintenance, and expected lengths of maintenance periods.

j. The daily average values of monitored parameters, for any days when the daily average value is outside the operating limits, or the data availability requirements defined below are not met. For deviations caused by lack of monitoring data, the duration of periods when monitoring data were not collected shall be specified. If the owner or operator elects not to retain the daily average values pursuant to §63.998(b)(5)(ii)(A), the owner or operator shall report this in the Periodic Report (40 CFR 63.999(c)(6)(i) as referenced from 63.2520(e)(9)).

k. All carbon-bed regeneration cycles during which the parameters recorded were outside the operating limits established (40 CFR 63.999(c)(6)(ii) as referenced from 63.2520(e)(9)).

(9 VAC 5-80-110 F and 40 CFR 63.2520)

VIII. Aquapel® Process Equipment Leak Requirements – (Emission Groups AQE01 to 19, and WWE10 and 11)

A. Monitoring

75. **Aquapel® Process Equipment Leak Requirements- Monitoring-** The permittee shall monitor for equipment leaks in accordance with the provisions in 40 CFR 63 Subpart UU as required by 40 CFR 63 Subpart FFFF.
(9 VAC 5-80-110 and 40 CFR 63.2480(a))

B. Recordkeeping

76. **Aquapel® Process Equipment Leak Requirements- Recordkeeping-** The permittee shall maintain the following records pertaining to equipment identification (40 CFR 63.1022(a)-(f)):

a. General and specific equipment identification if the equipment is not physically tagged and the permittee is electing to identify affected equipment through written documentation such as a log or other designation.

b. Written plan for any equipment that is designated as unsafe or difficult to monitor.

c. A record of the identity and an explanation for any equipment that is designated as unsafe-to-repair.

d. Records associated with the determination that equipment is in heavy liquid service.

e. A record of the identity of compressors operating with an instrument reading of less than 500 parts per million.

(9 VAC 5-80-110 and 40 CFR 63.1038(b)(1)-(5))

77. **Aquapel® Process Equipment Leak Requirements- Recordkeeping-** For each leak detected, the permittee shall attach a weatherproof and readily visible identification to the leaking equipment, keep and maintain a leak repair records of the following information (40 CFR 63.1024(f)).

a. The date of first attempt to repair the leak.

b. The date of successful repair of the leak.

c. Maximum instrument reading measured by Method 21 of 40 CFR Part 60, Appendix A at the time the leak is successfully repaired or determined to be non-repairable.

d. "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

(9 VAC 5-80-110 and 40 CFR 63.1038(b)(7))

78. **Aquapel® Process Equipment Leak Requirements- Recordkeeping-** The permittee shall maintain records for delay of repair, including the facts that explain any delay of repairs and, where appropriate, why the repair was technically infeasible without a process unit shutdown (40 CFR 63.1024(d).

(9 VAC 5-80-110 and 40 CFR 63.1038(b)(7))

79. **Aquapel® Process Equipment Leak Requirements- Recordkeeping-** The permittee shall maintain specific equipment leak records below:

a. A monitoring schedule for valves (40 CFR 63.1025).

b. Pump visual inspections (40 CFR 63.1026).

c. Connector monitoring schedules (40 CFR 63.1027).

d. Agitator seal visual inspections (40 CFR 63.1028).

e. Dates and results of monitoring following a pressure release for pressure relief devices in gas and vapor service (40 CFR 63.1030).

(9 VAC 5-80-110 and 40 CFR 63.1038(c))

80. **Aquapel® Process Equipment Leak Requirements- Recordkeeping-** All records shall be available for inspection by the DEQ and shall be current for the most recent five (5) years except that the information for connectors complying with the 8 year monitoring period allowed under §63.1027(b)(3)(iii) shall be kept 5 years beyond the date of its last use.

(9 VAC 5-80-110 and 40 CFR 63.1038(b)(6))

C. Reporting

81. **Aquapel® Process Equipment Leak Requirements- Semiannual Reports-** The permittee shall submit a semiannual report for equipment leaks that must be postmarked or delivered no later than August 31 or February 28, whichever date is the first date following the end of the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. This report may be combined with the Semiannual Compliance Report for the Aquapel® process (Section VI.E.1) with the following identical information:

a. Company name and address.

b. Statement by a responsible official with that official's name, title, and signature, certifying the accuracy of the content of the report

c. Date of report and beginning and ending dates of the reporting period.

(9 VAC 5-80-110, 40 CFR 63.2520(e)(9), and 40 CFR 63.1039(b))

82. **Aquapel® Process Equipment Leak Requirements- Semiannual Reports-** Semiannual report for equipment leaks shall include a summary format of equipment type, the number of components for which leaks were detected, the percent leaking components for valves, pumps, and connectors, and the total number of components monitored. Also include the number of leaking components that were not repaired as required, and for valves and connectors, identify the number of components that are determined to be non-repairable.

The above information must be included for the following equipment:

a. Valves in gas and vapor service and in light liquid service.

b. Pumps in light liquid service.

c. Connectors in gas and vapor service and in light liquid service.

d. Agitators in gas and vapor service and in light liquid service.

e. Compressors.

(9 VAC 5-80-110 and 40 CFR 63.1039(b)(1))

83. **Aquapel® Process Equipment Leak Requirements- Semiannual Reports-** The semiannual report for equipment leaks shall also include the following:

a. Where any delay of repair is utilized, report that delay of repair has occurred and report the number of instances of delay of repair (40 CFR 63.1024(d)).

b. If applicable, valve sub grouping information (40 CFR 63.1025(b)(4)(iv)).

c. The results of all monitoring to show compliance conducted within the semiannual reporting period for pressure relief devices in gas and vapor service (40 CFR 63.1030(b)).

d. Any revisions to items reported in an earlier Initial Compliance Status Report if the method of compliance has changed since the last report.

e. If applicable, the initiation of a monthly monitoring program for valves (40 CFR 63.1025(b)(3)(i)).

f. If applicable, the initiation of a quality improvement program for pumps (40 CFR 63.1035).

(9 VAC 5-80-110, 40 CFR 63.2520(e)(9), and 40 CFR 63.1039(b)(2)-(6) and (8))

IX. Insignificant Emission Units

84. **Insignificant Emission Units** - The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
Aquapel® process				
AQE01/				
A-3, A-4, &A-15	Three fatty acid tanks, 1965	9 VAC 5-80-720 B 2	VOC	
T-501-1A & T-501-1B	Two by-product storage tanks, 1993	9 VAC 5-80-720 B 5	Non-VOC HAP	
AQE02/				
A-1	Reactant tank, 1965	9 VAC 5-80-720 B 5	Non-VOC HAP	
A-1A	Reactant tank, 1989	9 VAC 5-80-720 B 5	Non-VOC HAP	
A-0	Reactant tank, 1994	9 VAC 5-80-720 B5	Non-VOC HAP	
AQE08/				
A-10 & A-11	Two by-product tanks, 1991	9 VAC 5-80-720 B 2	VOC	
A-25	Dilution water tank, 1994	9 VAC 5-80-720 B 2	VOC	
A-26	Aqueous solution tank, 1995	9 VAC 5-80-720 B 5	Non-VOC HAP	
T-707-1	Hot water tank, 1987	9 VAC 5-80-720 A42	N/A	
S-108-6A	Treatment vessel, 1993	9 VAC 5-80-720 B 5	HAP	
S-108-6B	Treatment vessel, 1993	9 VAC 5-80-720 B 5	HAP	
S-108-6C	Treatment vessel, 1993	9 VAC 5-80-720 B 5	HAP	
S-108-6D	Treatment vessel, 1993	9 VAC 5-80-720 B 5	HAP	
S-108-6E	Treatment vessel, 1993	9 VAC 5-80-720 B 5	HAP	
S-108-6F	Treatment vessel, 1993	9 VAC 5-80-720 B 5	HAP	
S-108-6G	Treatment vessel, 1993	9 VAC 5-80-720 B 5	HAP	
S-108-6F	Treatment vessel, 1993	9 VAC 5-80-720 B 5	HAP	
AQE09/				
A-2	Caustic solution tank, 2001	9 VAC 5-80-720 A42	N/A	
AQE19/				
A-63	Rework tank, 1966	9 VAC 5-80-720 B 5	VOC HAP	
A-61 & A-62	Two product tanks, 1966	9 VAC 5-80-720 B 5	VOC HAP	
Wastewater Neutralization Process No insignificant units identified				
Facility-wide				
IS-T-2	No. 2 fuel oil storage tank, vertical fixed roof ≤ 20,000 gal, exempt from NSPS Subpart Kb	9 VAC-5 80-720 B	VOC	
Unassigned	Warehousing/storage/offices	9 VAC 5-80-720 A and B	All criteria pollutants	

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

X. Permit Shield & Inapplicable Requirements

85. **Permit Shield & Inapplicable Requirements** - Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
9 VAC 5-40-3410 et seq. (Rule 4-25)	Emission Standards For Volatile Organic Compound Storage and Transfer Operations.	Facilities located in a VOC control area (9 VAC 5-20-206).
40 CFR 63 Subparts F, G, H, and I	Hazardous Organic NESHAP (HON) MACT.	SOCMI major HAP sources that meet the criteria of 40 CFR 63.100 (b)(1) to (3).
40 CFR 63 Subpart Q	Cooling Tower MACT.	Facilities that had previously used chromium-based water treatment chemicals in the cooling towers.
60 CFR 60 Subpart III	NSPS for VOC Emissions from the Synthetic Organic Chemical Manufacturing Industry (SOMCI) Air Oxidation Unit Processes.	SOCMI emission units that meet the definition of "air oxidation process" in 40 CFR 60.611.
40 CFR 60 Subpart NNN	NSPS for VOC Emissions from SOCMI Distillation Operations.	SOCMI distillation processes that was in existence on December 20, 1983, and produces chemicals listed in 40 CFR 60.667.
40 CFR 60 Subpart RRR	NSPS for VOC Emissions from SOCMI Reactor Processes.	SOCMI reactor processes that produce chemicals listed in 40 CFR 60.707.
40 CFR 63 Subpart ZZZZ	National Emission Standards For Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE)	The facility's emergency air compressor (EAC1) is subject to this MACT as amended; however, due to its small size and emergency use, there is no additional requirement other than those from NSPS Subpart IIII.
40 CFR 63 Subpart GGGGG	National Emission Standards For Hazardous Air Pollutants: Site remediation	HAP emissions from remediation activities at major HAP sources.
40 CFR 63 Subpart NNNNN	National Emission Standards for Hydrochloric Acid Production	Hydrochloric acid production at concentration of 30% by weight or greater.

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by (i) the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.
(9 VAC 5-80-140)

XI. General Conditions

86. **General Conditions - Federal Enforceability** -All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.
(9 VAC 5-80-110 N)

87. **General Conditions - Permit Expiration-** This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

88. **General Conditions - Permit Expiration-**The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

89. **General Conditions - Permit Expiration-**If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

90. **General Conditions - Permit Expiration-**No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

91. **General Conditions - Permit Expiration-**If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

92. **General Conditions - Permit Expiration-**The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

93. **General Conditions -Recordkeeping and Reporting** - All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

    a. The date, place as defined in the permit, and time of sampling or measurements.

    b. The date(s) analyses were performed.

    c. The company or entity that performed the analyses.

    d. The analytical techniques or methods used.

e. The results of such analyses.

f. The operating conditions existing at the time of sampling or measurement.

(9 VAC 5-80-110 F)

94. **General Conditions -Recordkeeping and Reporting** - Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
(9 VAC 5-80-110 F)

95. **General Conditions -Recordkeeping and Reporting** - The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than **March 1** and **September 1** of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.

b. All deviations from permit requirements. For purpose of this permit, deviations include, but are not limited to:

i. Exceedance of emissions limitations or operational restrictions;

ii. Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or Compliance Assurance Monitoring (CAM) which indicates an exceedance of emission limitations or operational restrictions; or,

iii. Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.

c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that "no deviations from permit requirements occurred during this semiannual reporting period."

(9 VAC 5-80-110 F)

96. **General Conditions - Annual Compliance Certification** - Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than March 1 each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices for the period ending December 31. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. The permittee shall maintain a copy of the certification for five (5) years after submittal of the certification. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

a. The time period included in the certification. The time period to be addressed is January 1 to December 31.

b. The identification of each term or condition of the permit that is the basis of the certification.

c. The compliance status.

d. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.

e. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.

f. Such other facts as the permit may require to determine the compliance status of the source.

g. One copy of the annual compliance certification shall be submitted to EPA in electronic format only. The certification document should be sent to the following electronic mailing address:

R3_APD_Permits@epa.gov

(9 VAC 5-80-110 K.5)

97. **General Conditions - Permit Deviation Reporting** - The permittee shall notify the Director, Tidewater Regional Office within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. The occurrence should also be reported in the next semiannual compliance monitoring report pursuant to Condition 95 of this permit.
(9 VAC 5-80-110 F.2 and 9 VAC 5-80-250)

98. **General Conditions - Failure/Malfunction Reporting** - In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours after the malfunction is discovered, notify the Director, Tidewater Regional Office by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within 14 days of discovery provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Director, Tidewater Regional Office.
(9 VAC 5-20-180 C)

99. **General Conditions - Severability** - The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9 VAC 5-80-110 G.1)

100. **General Conditions - Duty to Comply** - The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is ground for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.
(9 VAC 5-80-110 G.2)

101. **General Conditions - Need to Halt or Reduce Activity not a Defense** -It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
(9 VAC 5-80-110 G.3)

102. **General Conditions - Permit Modification** -A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1605, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.
(9 VAC 5-80-190 and 9 VAC 5-80-260)

103. **General Conditions - Property Rights** - The permit does not convey any property rights of any sort, or any exclusive privilege.
(9 VAC 5-80-110 G.5)

104. **General Conditions - Duty to Submit Information** - The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.
(9 VAC 5-80-110 G.6)

105. **General Conditions - Duty to Submit Information** - Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.
(9 VAC 5-80-110 K.1)

106. **General Conditions - Duty to Pay Permit Fees** - The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-300 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-350 in addition to an annual permit maintenance fee consistent with the requirements of 9 VAC 5-80-2310 through 9 VAC 5-80-2350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department. The amount of the annual permit maintenance fee shall be the largest applicable base permit maintenance fee amount from Table 8-11A in 9 VAC 5-80-2340, adjusted annually by the change in the Consumer Price Index.
(9 VAC 5-80-110 H, 9 VAC 5-80-340 C and 9 VAC 5-80-2340 B)

107. **General Conditions - Fugitive Dust Emission Standards** - During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;

b. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;

c. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or similar operations;

d. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,

e. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-40-90 and 9 VAC 5-50-90)

108. **General Conditions - Startup, Shutdown, and Malfunction** - At all times, including periods of startup, shutdown, and soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
(9 VAC 5-50-20 E and 9 VAC 5-40-20 E)

109. **General Conditions - Alternative Operating Scenarios** - Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1.
(9 VAC 5-80-110 J)

110. **General Conditions - Inspection and Entry Requirements** - The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

a. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.

b. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.

c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.

d. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110 K.2)

111. **General Conditions - Reopening For Cause** - The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F. The conditions for reopening a permit are as follows:

a. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

b. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

c. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

112. **General Conditions - Permit Availability** - Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.
(9 VAC 5-80-150 E)

113. **General Conditions - Transfer of Permits** - No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.
(9 VAC 5-80-160)

114. **General Conditions - Transfer of Permits** - In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

115. **General Conditions - Transfer of Permits** - In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

116. **General Conditions - Malfunction as an Affirmative Defense** - A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the requirements of Condition 117 are met.
(9 VAC 5-80-250)

117. **General Conditions - Malfunction as an Affirmative Defense** - The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:

a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.

b. The permitted facility was at the time being properly operated.

c. During the period of the malfunction the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit.

d. The permittee notified the Board of the malfunction within two working days following the time when the emission limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, or any other method that allows the permittee to comply with the deadline. This notification fulfills the requirements of 9 VAC 5-80-110 F.2.b to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirement under 9 VAC 5-20-180 C.

(9 VAC 5-80-250)

118. **General Conditions - Malfunction as an Affirmative Defense** - In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof.
(9 VAC 5-80-250)

119. **General Conditions - Malfunction as an Affirmative Defense** - The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any applicable requirement.
(9 VAC 5-80-250)

120. **General Conditions - Permit Revocation or Termination for Cause** - A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any grounds for revocation or termination or for any other violations of these regulations.
(9 VAC 5-80-190 C and 9 VAC 5-80-260)

121. **General Conditions - Duty to Supplement or Correct Application** - Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.
(9 VAC 5-80-80 E)

122. **General Conditions - Stratospheric Ozone Protection** - If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.
(40 CFR Part 82, Subparts A-F)

123. **General Condition - Accidental Release Prevention** - If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined under 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.
(40 CFR Part 68)

124. **General Conditions - Changes to Permits for Emissions Trading** - No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.
(9 VAC 5-80-110 I)

125. **General Conditions - Emissions Trading** - Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

a. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.

b. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.

c. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

(9 VAC 5-80-110 I)

XII. State-Only Enforceable Requirements

The following terms and conditions are not required under the federal Clean Air Act or under any of its applicable federal requirements, and are not subject to the requirements of 9 VAC 5-80-290 concerning review of proposed permits by EPA and draft permits by affected states.

126. **State-Only Enforceable Requirements – Standards for Odor**- The facility is subject to the Emission Standards for Odor in 9 VAC 5-40-130 et seq. (Rule 4-2), and the Standards of Performance for Odorous Emissions in 9 VAC 5-50-130 et seq. (Rule 5-2)
(9 VAC 5-80-110 N and 9 VAC 5-80-300)